

Amendment under 37 CFR 1.111
Hideshi FUJIWAKE
June 11, 2003

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REMARKS

Claims 1-6 are pending in this application. Claims 3, 5 and 6 have been amended herein. Minor amendments have been made to the specification. Minor amendments have been made to the Abstract.

The amendments to claims 3, 5 and 6 are made for clarity. In claim 3, a minor grammatical error has been corrected, in response to the objection to the claim. In claims 5 and 6, the spelling of the word "analogue" has been corrected from the incorrect spelling, "analog".

The spelling of "analogue" has also been corrected in the specification and Abstract.

Claim 3 is objected to (Office action point no. 1).

The objection is overcome by the amendment to claim 3.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coull et al. (U.S. Patent No. 5,011,861) in view of Rose et al. (Manual of Clinical Laboratory Immunology, Fourth Edition) (Office action point no. 3).

The rejection of claims 1-6 is respectfully traversed and reconsideration and withdrawal of the rejection are requested.

Applicants first respectfully note that "Rose et al." refers to the article by Carpenter in Chapter 2 of Manual of Clinical Laboratory Immunology.

Coull et al. discloses membranes suitable for immobilizing peptides and proteins. In the

Background section, Coull et al. discloses that several methods, including the Edman degradation, proceed by stepwise chemical or enzymatic degradation of peptides from the (N-) or (C-) terminal end. Coull et al. discloses that the inventive membranes may be used for immobilizing peptides in the Edman degradation (column 21, lines 15-20 and 35-48).

Detection of the amino acids in the Edman method is discussed in Example 5, starting in column 25, line 54. The cleaved ATZ amino acids were converted to the corresponding PTH derivatives and were identified by reversed phase HPLC with UV/Vis detection. No other detection method is discussed.

The Examiner cites Coull et al. for describing an Edman degradation of an immobilized peptide and indicates that Coull et al. does not disclose step (B) of claim 1.

The Examiner cites Rose et al. as "teaching the advantages of using a competitive assay that can use either antibodies or antigens on a solid phase." The Examiner states that "It would have been obvious ... to utilize a competitive assay to determine liberated constitutive amino acids as disclosed by Rose et al. in the method of Coull et al. because competitive assays offer great specificity and are ideal for measuring small molecules that can be obtained in large enough amounts to be labeled."

Applicants respectfully disagree.

First of all, there is no suggestion in Coull et al. to analyze the amino acids released in the Edman degradation by any method other than HPLC with UV/Vis detection. Moreover, there is no motivation in Coull et al. to use another detection method, since Coull et al. implies that the

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disclosed method works well.

Secondly, Rose et al. is a general article on enzyme-linked immunoassays. There is no suggestion in Rose et al. to use enzyme-linked immunoassays to analyze amino acids from Coull et al.'s Edman degradation, or indeed from any peptide sequencing or amino acid analysis. Rose et al. does not even mention derivitized amino acids as possible analytes for enzyme-linked immunoassays. Applicants therefore submit that the Examiner has not provided any suggestion or motivation for the proposed combination of Rose et al. with Coull et al.

Moreover, the combination of Rose et al. and Coull et al. may not even be enabling for present claim 1, since there is no disclosure in Rose et al. regarding which derivitized amino acids might be detected by an enzyme-linked immunoassay and how these might be obtained. As noted, there is no disclosure in Coull et al. regarding detection of derivitized amino acids by enzyme-linked immunoassay.

Applicants therefore assert that no *prima facie* case of obviousness can be made for claims 1-6 by combining Coull et al. and Rose et al., and that the claims are novel and non-obvious over these references.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

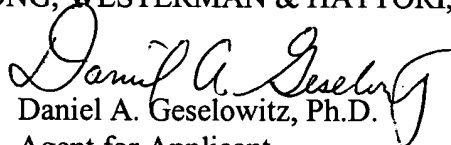
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In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP


Daniel A. Geselowitz, Ph.D.
Agent for Applicant
Reg. No. 42,573

DAG/plb:lms
Atty. Docket No. **011658**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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